DOCUMENTATION D’INSTALLATION

Matplotlib

Matplotlib is a comprehensive Library for creating static, animated, and interactive visualizations in Python.

Installation

Install using [pip](https://pypi.org/project/matplotlib):

pip install matplotlib

Install using [conda](https://docs.continuum.io/anaconda/):

conda install matplotlib

Further details are available in the [Installation Guide](https://matplotlib.org/stable/users/installing/index.html).

NumPy

**Download documentation**: [PDF Version](https://numpy.org/doc/stable/numpy-user.pdf) | [Historical versions of documentation](https://numpy.org/doc/)

NumPy is the fundamental package for scientific computing in Python. It is a Python library that provides a multidimensional array object, various derived objects (such as masked arrays and matrices), and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting, I/O, discrete Fourier transforms, basic linear algebra, basic statistical operations, random simulation and much more.

# Pillow

Pillow is the friendly PIL fork by [Alex Clark and Contributors](https://github.com/python-pillow/Pillow/graphs/contributors). PIL is the Python Imaging Library by Fredrik Lundh and Contributors.

lnstall Pillow with **pip**:

python3 -m pip install --upgrade pip

python3 -m pip install --upgrade Pillow

**random**

**Source code:** [Lib/random.py](https://github.com/python/cpython/tree/3.11/Lib/random.py)

This module implements pseudo-random number generators for various distributions.

For integers, there is uniform selection from a range. For sequences, there is uniform selection of a random element, a function to generate a random permutation of a list in-place, and a function for random sampling without replacement.